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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VALENROD, YEVGENY	

ART UNIT	PAPER NUMBER
1621	

NOTIFICATION DATE	DELIVERY MODE
07/08/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/553,993	LACROIX-DESMAZES ET AL.	
	Examiner	Art Unit	
	YEVEGENY VALENROD	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-36* is/are pending in the application.

4a) Of the above claim(s) *26-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/30/07 10/12/06 5/9/06 2/16/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election without traverse of Group I, claims 17-25 in the reply filed on 3/6/08 is acknowledged.

Claims 26-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected subject matter, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/6/08.

Specification

The abstract of the disclosure is objected to because a brief description of the drawings is missing. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In lines 4-5 of claim 1, a free-radical-generating substance is described as including: "substances derived from tetraphenylethane, boranes and iniferter substances". There is no limiting definition of the above listed substances in the specification. It is unclear which substances are included and which are excluded from above limitation. Furthermore it is unclear what the term "iniferter" means. For the purposes of advancing prosecution Examiner will interpret the word

"iniferter" as "initiator", however appropriate correction by the way of amendment is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17, 18, 19, 20, 22, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Perret et al. (*Helv. Chem. Acta* **1945**, *28*, 558-575; translation).

Perret et al. disclose a process where benzoyl peroxide, molecular iodine and stilbene are reacted together (page 25, section titled "experimental results", paragraph 1). Phenyl iodide, an iodinated organic compound, is produced and isolated (page 25, section titled "experimental results", paragraph 3).

Since all the limitations of the process are met, the color inherently changed at the completion of reaction. Since the products were isolated, it is inherent that the reaction was stopped. Phenyl iodide has a MW less than 500.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chambers et al (Journal of fluorine chemistry, 1995, 73, 87-94) in view of March (Advanced organic chemistry, Fifth edition, 2001, page 977) and in further view of Moczygemba et al. (US 5,055,713).

Instant claim are directed to a process where iodinated organic substance(s) is formed. The process comprises a free radical initiator, iodine and an alkene. The product formed is below 1000MW and additional limitations of claims 19-25 include:

- Alkene is not the limiting reagent (claim 20)
- More iodine than initiator is added (claim 21)
- Additional step (3), where the reaction is stopped.
- More initiator than iodine is added (claim 24)
- Product is isolated after the reaction is stopped (claim 25).

Scope of prior art

Chambers et al teach addition of molecular iodine to an olefinic compound to produce an iodinated organic compound of less than 1000MW (page 88, column 1, section **2. results**, line 5; reaction (2)).

Ascertaining the difference between instant claims and prior art

Chambers fails to teach presence of a free radical initiator in the production of iodinated compound.

Secondary reference

1) March et al teach that in a free radical addition a free radical can obtained by hemolytic cleavage of the YW moiety (as taught by chambers) or a radical from another source (R) (page 97 Section titled "free radical addition").

2) Moczygemba et al teaches that free radical initiators are a source of radicals and specifically lists t-butyl hydroperoxide as an initiator (column 3, line55).

Obviousness

Chambers teaches production of iodinated organic molecules using iodine as a source of radicals. March teaches that a different source of radicals can be used. Moczygemba teaches free radical initiators that are well known in the art to be a source of free radicals. When combined the three references teach the instant invention. UV irradiation of iodine to form the radicals as taught by Chambers can be avoided by using thermal cleavage and a free radical initiator that undergoes homolytic cleavage under thermal conditions. The result of using a free radical initiator is that the reaction will

work in the same or very similar manner as without iodine being the source of radicals, as suggested by March, i.e. an organic iodinated substance will be formed.

Limitations directed to the relative concentration of reagents are obvious. One of ordinary skill in the art would have been motivated to attempt various reagent concentrations in order to find optimal conditions for the process. The said limitations are therefore obvious absent unexpected results.

The claimed step (3) where the reaction is stopped and the reactants are separated is also obvious. It is obvious to stop a reaction to avoid production of byproducts and to isolate the desired product. Applicants have not indicated that isolation of the product has yielded anything other than the expected result, the product is isolated.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 17-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,078473. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process claimed in '473 has all the steps required in the instant claims. The process of '473 mixes an ethylenically unsaturated compound with molecular iodine and a radical-generating compound. Since all the limitation directed to process itself are the same, the product will inherently be the product of the instant invention, iodinated organic compound with MW below 500.

Instant claims where reagent ratios are claimed are obvious absent unexpected results. It is obvious for one skilled in the art to alter reagent concentrations in order to find optimal conditions for carrying out the process.

Conclusion

Claims 17-36 are pending

Claims 17-25 are rejected

Claims 26-36 are withdrawn

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yevgeny Valenrod whose telephone number is 571-272-9049. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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